AMENDMENTS TO THE DRAWINGS

Figure 1 has been amended, as requested by the Examiner, to correct the lead line for reference number "13".

REMARKS

Applicants request favorable reconsideration of this application in view of the foregoing amendments and the following remarks. Of claims 1-5 that were pending in the application, claims 1, 4, and 5 were rejected in the Office Action. Applicants greatly appreciate the positive indication of allowable subject matter in claims 2 and 3. In response to this positive indication, Applicants have amended claim 2 (*i.e.*, the claim from which claim 3 depends) to be in independent claim format and to address matters of form, thereby enabling claims 2 and 3 to be allowed. In addition, Applicants have also amended claims 1 and 3-5. Accordingly, claims 1-5 are respectfully presented for further consideration.

1. Objection to the Drawings

The Examiner objected to Figure 1 because "reference figure (13) depicts the pulley instead of the belt." Applicants respectfully submit that this objection has been fully obviated by way of the amendments made herein to Figure 1. Accordingly, a withdrawal of this objection is both warranted and earnestly solicited.

2. Rejection of Claims 1, 4, and 5

The Examiner rejected: (a) claims 1 and 5 under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 5,269,726 ("Swanson"); and (b) claim 4 as allegedly being obvious when considering Swanson in view of U.S. Patent No. 6,464,603 ("Reuschel"). For at least the following reasons, Applicants respectfully traverse both of these rejections.

As amended, claim 1 (*i.e.*, the claim from which claim 4 depends) recites a V-belt continuously variable transmission ("V-belt CVT"). This V-belt CVT includes, among other possible things (italic emphasis added):

> an input shaft;
> an output shaft;
> a primary pulley that is connected to the input shaft and whose groove width is configured to change in accordance with a supplied fluid pressure;
> a secondary pulley that is connected to the output shaft and whose groove width is configured to change in accordance with a supplied fluid pressure;
> a V-belt that is wrapped around the primary pulley and the secondary pulley; and
> a controller that is configured to:
> when a speed ratio of the transmission is to be increased,

> set the fluid pressure supplied to the primary pulley to a fluid pressure necessary for ensuring a torque capacity of the V-belt and necessary for maintaining the speed ratio, and
>
> *set the fluid pressure supplied to the secondary pulley to a fluid pressure that is increased from the fluid pressure necessary for ensuring the torque capacity of the V-belt and necessary for maintaining the speed ratio by an amount necessary for attaining a target speed change speed.*

Similarly, as amended claim 5 recites a speed change control method for a V-belt CVT. In this method, the V-belt CVT includes, among other possible things: (a) "a primary pulley connected to an input shaft and whose groove width is configured to change in accordance with a supplied fluid pressure"; (b) "a secondary pulley connected to an output shaft and whose groove width is configured to change in accordance with a supplied fluid pressure"; and (c) "a V-belt that is wrapped around the primary pulley and the secondary pulley". This method includes, among other possible steps (italic emphasis added):

> when a speed ratio of the transmission is to be increased:
>
> setting the fluid pressure supplied to the primary pulley to a fluid pressure necessary for ensuring a torque capacity of the V-belt and necessary for maintaining the speed ratio; and
>
> *setting the fluid pressure supplied to the secondary pulley to a fluid pressure that is increased from the fluid pressure necessary for ensuring the torque capacity of the V-belt and necessary for maintaining the speed ratio by an amount necessary for attaining a target speed change speed.*

For at least the following reasons, neither Swanson nor Reuschel (standing alone or in combination) teaches or suggests the V-belt CVT recited in claim 1 or the method for a V-belt CVT recited in claim 5.

With regard to the instant invention (and as above-italicized in claims 1 and 5), when a speed ratio of the transmission is to be increased (*i.e.,* when there is a downshift), the fluid pressure supplied to the primary pulley 11 is set "to a fluid pressure [$tP_{pri} = tF_{pri}/A1 = F_{pri}/A1$] necessary for ensuring a torque capacity of the V-belt and necessary for maintaining the speed ratio." As a result, slippage of the V-belt is prevented. In addition, however, the fluid pressure supplied to the secondary pulley 12 is set "to a fluid pressure [tP_{sec}] that is *increased* from the fluid pressure [$F_{sec}/A2$] necessary for ensuring the torque capacity of the V-belt and necessary for maintaining the speed ratio *by an amount [$DF_{sec}/A2$] necessary for attaining a target speed change speed.*" *See* application at ¶¶ **[0043]**, **[0060]**, and **[0073]**; Fig. 3 at Steps S6 – S9. With respect to Steps S6 and S9, we note the following:

Step S6:	$tF_{sec} = F_{sec} + DF_{sec}$	Step S9:	$tP_{sec} = tF_{sec}/A2$
	Substitute S6 into S9		$tP_{sec} = (F_{sec} + DF_{sec})/A2$
	Break-out Division		$tP_{sec} = F_{sec}/A2 + DF_{sec}/A2$

In other words, the fluid pressure [tP_{sec}] supplied to the secondary pulley 12 is increased, from the fluid pressure [$F_{sec}/A2$] that is necessary for ensuring the torque capacity of the V-belt and maintaining the speed ratio, by an amount [$DF_{sec}/A2$] necessary for attaining a target speed change speed. As a result, the instant invention enables the target speed change speed to be attained while simultaneously preventing slippage of the V-belt.

In contrast to the instant invention, neither Swanson nor Reuschel teaches or suggests increasing the pressure supplied to the secondary pulley by a correction amount of [$DF_{sec}/A2$] such that the target speed change speed is attained while at the same time slippage of the V-belt is prevented. Rather, Swanson teaches that the secondary apply pressure Ps is determined "as a function of the required secondary sheave clamping force F2r, belt ratio R, and engine speed Ne." *See* Swanson at col. 17, lines 61-65. Similarly, after the secondary apply pressure Ps is determined, "the primary servo apply pressure Pp is calculated . . . as a function of belt ratio R, required secondary sheave clamping force F2r, and engine speed Ne." *See* Swanson at col. 19, lines 7-10. As a result, Swanson fails to teach or suggest at least the above-italicized limitation of claims 1 and 5. Moreover, Reuschel fails to cure this deficiency of Swanson.

As neither Swanson nor Reuschel teaches or suggests at least the above-italicized limitation of claims 1 and 5, the references (standing alone or combined) can not be used to reject the claims, or any claim dependent thereon, under 35 U.S.C. §§ 102(b), 103(a). Moreover, as claim 4 depends from claim 1, claim 4 is also allowable over Swanson and Reuschel, without regard to the other patentable limitations recited therein. Accordingly, a withdrawal of the rejections of claims 1, 4, and 5 under §§ 102(b), 103(a) is both warranted and respectfully requested.

CONCLUSION

For the aforementioned reasons, claims 1-5 are now in condition for allowance. A Notice of Allowance at an early date is respectfully requested. The Examiner is invited to contact the undersigned if such communication would expedite the prosecution of the application.

Respectfully submitted,

Date December 9, 2005

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